

KEIM MINERAL PAINTS IN CONSERVATION

KEIM MINERAL PAINTS

CONSERVATION

Building conservation is essential to protect an irreplaceable part of our cultural heritage from deterioration, neglect, unsympathetic changes and unnecessary destruction. KEIM Mineral Paints understand that, when it is necessary to redecorate and restore older and historic buildings, it is important to ensure that it is done in a manner that protects and preserves the building. The paint material choice is as important a decision as choosing the right decorator.

Conventional acrylic paints merely coat the surface and create a film around the substrate. This film forming coating does not allow moisture vapour to pass through it, which can result in the formation of blisters which may lead to cracking and flaking paint finishes. If moisture vapour is unable to pass through the surface, this can lead to elevated moisture levels within the substrate eventually leading to friability and damage. This is a common problem in older buildings, in particular where a variety of coatings are likely to have been applied over the years.



Roffey Park, Colgate, West Sussex, Grade II Listed

CONSERVATION

Old and historic buildings can suffer from a multitude of problems, which are fairly common. Typical problems to be addressed when redecorating are:

SUBSTRATE CONDITION - As buildings move over time, cracks and damage can occur within the structure. By the very nature of old buildings, it is common to find a build up of algae and fungal growth which, if left untreated, will affect the structure and appearance of the property.

Prior to redecoration and refurbishment it is important to identify and rectify the underlying cause of the damage, to ensure that any work carried out is not simply 'painting over the cracks'.

PEELING PAINT - Moisture build up behind film forming paints saturates the underlying substrate, causing paint to blister and flake, leading to damage to the fabric of the building itself. The use of breathable mineral paint enables humidity contained in building structures to be quickly released unhindered into the environment, avoiding moisture build up between the coating and substrate.

By refurbishing and redecorating using specialised products and materials that are in keeping with the original building, these problems can be dealt with effectively to give beautiful long lasting and protective finishes.







KEIM MINERAL PAINTS

KEIM Mineral Paints are an ideal solution for redecorating in building conservation.

KEIM MINERAL PAINTS ARE:

- Extremely long life and durable, sustainable materials
- Highly breathable
- Environmentally friendly – made from natural materials
- Water-based
- Low VOC and solvent free
- UV stable and fade free
- Highly light reflective
- Incombustible
- Odourless
- Available in a wide range of colours
- Resistant to mould and fungal growth
- Suitable for unpainted and previously painted surfaces

Mineral paints, unlike conventional acrylic paints, form a permanent crystalline bond with the underlying substrate, rather than a purely adhesive bond. This retains the breathability of the substrate and ensures that moisture vapour continues to pass through the substrate unimpeded, with no risk of blistering and cracking of the paint finish. This ensures that KEIM Mineral Paints provide an extremely long term decorative solution which works in harmony with buildings.

KEIM MINERAL PAINTS

KEIM Mineral Paints have been used for many conservation projects, a few of which are featured in this booklet, and materials have been accepted by English Heritage, The National Trust, Historic Scotland and CADW.

Our experienced staff and comprehensive support service provides:

- Colour cards and swatches
- Brush-out and liquid colour samples
- Free of charge colour matching service
- Free of charge site inspections
-
- Proposal reports detailing pre-treatment and product recommendations
- On site assistance to painters and decorators
- A wide range of complimentary products and systems for repair and pre-treatment of surfaces



Summerhill House, Tunbridge Wells, Grade II Listed; Ledbury Heritage Centre, Worcestershire, Grade I Listed



PRODUCTS: EXTERNAL PAINT SYSTEMS

KEIM offer a range of high quality, breathable external paint systems:

KEIM SOLDALIT/KEIM SOLDALIT ME - a highly developed multi purpose exterior sol silicate paint system based on a combination of silica sol and potassium silicate binding agents. KEIM Soldalit/ME is suitable for application on to a variety of unpainted and existing previously painted surfaces, combining the benefits of a classic mineral paint with simplicity of application. KEIM Soldalit ME variant gives increased resistance to mould and fungal growth.

KEIM GRANITAL– a classic mineral, matt finish silicate based paint for use on all forms of mineral substrates.

Lode Road, Cambridge , Grade II Listed



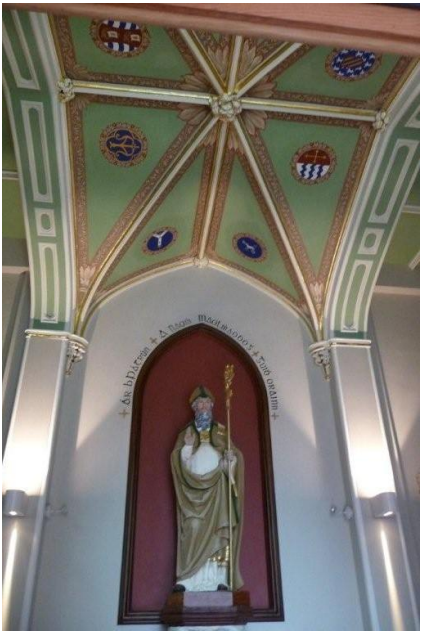
PRODUCTS: INTERNAL PAINT SYSTEMS

KEIM offer a range of high quality, breathable internal paint systems:

KEIM ECOSIL-ME - a truly environmentally friendly mineral paint for interior application. KEIM Ecosil-ME is the only internal silicate paint which optimises air quality, using photo-catalytic pigments to reduce noxious gases and odours by transforming them into natural substances. Certified Allergy Safe and proven to kill bacteria.

KEIM OPTIL - a premium quality sol-silicate paint specifically formulated for elegant interior applications, giving intense, lightfast colour shades.

St Malachy's Church, Belfast, Grade A Listed





PRODUCTS: RENDER & REPAIR SYSTEMS

KEIM Mineral Paints offer a range of mineral repair and filler materials.

KEIM SPACHTEL & KEIM DOLOMITSPACHTEL are ready to use silicate fillers suitable for small crack repair and surface equalisation onto external (KEIM Spachtel) and internal (KEIM Dolomitspachtel) surfaces.



KEIM UNIVERSAL RENDER is a dry bagged hydrated lime based ready-to-use renovation render for use on all mineral substrates both externally and internally. KEIM Universal Render is extremely breathable and also flexible, reducing the need for expansion joints. KEIM Universal Render Fine is also available for a smoother finish.





PRODUCTS: STONE REPAIR SYSTEM

The KEIM Restauro repair system is a range of dry bagged, mineral based restoration mortars which are ideal for repairing damage to natural stone surfaces:

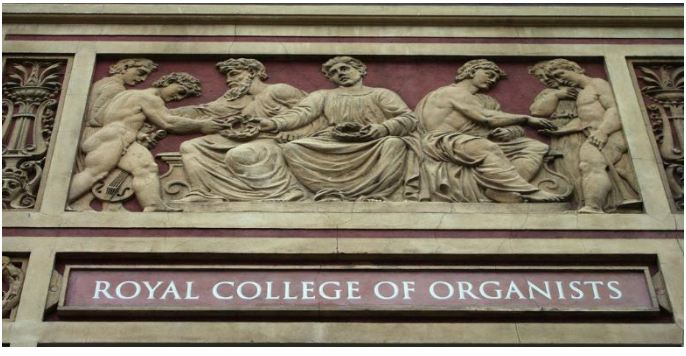
KEIM RESTAURO GRUND for deep repairs to stone substrates.

KEIM RESTAURO TOP for smooth finishing repairs available in a natural stone colour range to blend repairs into existing stonework.

KEIM RESTAURO FUGE for the reinstatement of mortar joints available in a natural stone colour range.







Above: Stone details during and after restoration with the KEIM Restauro Stone Repair System

Left: Royal College of Organists, London – Grade II Listed

PROJECT: THE PEPPER POT, BRIGHTON

The Pepper Pot is a listed building in the Queen's Park area of Brighton and Hove. Designed and built in 1830 by architect Charles Barry in the grounds of a villa built for the owner of Queen's Park, it survived the villa's demolition and is now one of its only surviving remnants. It is owned by Brighton and Hove City Council, and has been given Grade II listed status by English Heritage in view of its architectural and historical importance.

KEIM Spachtel and KEIM Soldalit were used for refurbishment of the structure in 2012. The protective and colour stable finish offered by KEIM Soldalit will protect the structure and the decorative details from weathering.

The mineral matt texture of the paint does not create a painted artificial 'sheen' and will darken in wet weather, like a natural unpainted surface.









PROJECT: GOSPORT RAILWAY STATION

Gosport Railway Station was originally designed by William Tite and was opened in 1841 by the London and South Western Railway. On 10 March 1941, during World War II, the station received a direct incendiary hit from an aerial attack, the main damage being to the roofing which caught alight and collapsed. After the war Gosport Station's role diminished and on 6 June 1953 scheduled passenger services from Gosport ceased. Freight traffic remained until 30 January 1969, but then the station closed to all traffic. The buildings thus remained un-used and un-occupied for nearly 30 years.

In 2006, planning approval was given for the site to be converted into a small number of residential properties and offices using the existing structure of the platform as the basis for the design. The development was for the Guinness Trust and designed by award winning architects Re-Format. The design has been commended by the Civic Trust Awards.

The grand Portland Stone colonnade of the station is Grade II* Listed and was decorated with KEIM Soldalit as part of the refurbishment to transform the site into a small number of residential properties and offices. By decorating and conserving the original part of the building this blends into the newer part of the site, but retains the original features.





PROJECT: WHITE HORSE, WESTBURY

The Wiltshire Countryside is famous for its white horse chalk hill figures. It is thought that there have been 13 white horses in existence in Wiltshire, but only 8 are still visible today.

The Westbury White Horse is located on the steep western slope of Westbury Hill, below the Iron Age hill-fort of Bratton Camp. The Westbury White Horse is believed to have been cut to commemorate victory over the Danes in the Battle of Ethandun (possibly nearby Edington) in 878AD. It measures 182ft by 108ft and is best seen from the B3098 Westbury to Lavington road.

Over time the horse has become discoloured as a result of algae and other plant growth. The Town Council and residents of Westbury were of the view that the horse should be restored to its rightful colour in time for the Diamond Jubilee in 2012.

KEIM Royalan was the ideal paint system to provide weathering and protection to conserve the horse for future generations.







Left: Before and during restoration, Above: After redecoration

PROJECT: MERCAT CROSS, BANFF

The Mercat Cross in Banff depicts the crucifixion on one side and on the other the Virgin and Child. It is a rare surviving example of such overtly religious pre-reformation work. It is a scheduled, Category A Listed, Site of Regional Significance.

After cleaning, KEIM Royalan was used to achieve the bright colours which will remain UV stable and will not fade over time.

The gold details are also decorated using mineral paint rather than traditional gilding. KEIM Royalan is not simply a gold coloured paint, but is manufactured using real gold and as such is an ideal alternative to gilding as it is easy to apply and offers a long life protective finish.



Below: Before and during restoration, Right: Completed work







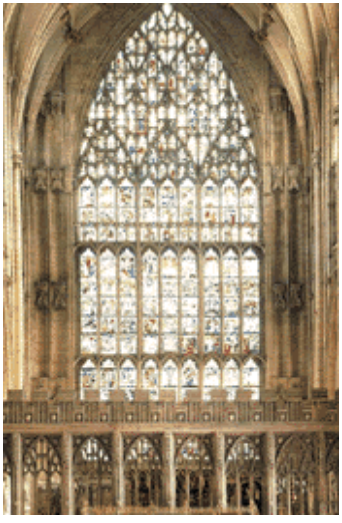
PROJECT: YORK MINSTER

The dedicated team of Stone Masons at York Minster use KEIM Restauro materials for repairs, the example here is the east window.

KEIM Restauro can be colour matched to blend in repaired areas and is easy to work and form to match the intricate shapes and details of the window.

KEIM Restauro materials have the same properties as natural stone and retain a natural look, which will weather in the same manner as the surrounding stone unlike cement based products which are not ideal for stone conservation.







OTHER CONSERVATION PROJECTS

Some other projects where KEIM Mineral Paints have been used as part of the conservation process include:

- Blair Castle, Blair Athol
- Boscobel House, Shropshire
- Chapter House & Pyx Chamber, London
- Edinburgh Castle, Edinburgh
- Osborne House, Isle Of Wight
- Rothesay Castle, Isle Of Bute
- Buckingham Palace, London
- Kensington Palace, London
- Royal Hotel, Llangollen
- St Martins in the Field, London
- Oxford Oratory, Oxford
- St Pancras Station, London
- Trinity & Jesus College, Cambridge
- St Catherine's College, Oxford

For any further information about KEIM Mineral Paints and their use in conservation please contact our sales office on 01952 231250 or info@keimpaints.co.uk.

KEIM MINERAL PAINTS LTD.
Santok Building, Deer Park Way, Donnington Wood
Telford, Shropshire, TF2 7NA
01952 231250 / www.keimpaints.co.uk / sales@keimpaints.co.uk

KEIM. COLOURS FOR EVER.